Manitoba
Highways and
Transportation

# SUBMISSION OF THE PROVINCE OF MANITOBA TO THE ROYAL COMMISSION ON NATIONAL PASSENGER TRANSPORTATION

WINNIPEG, MANITOBA

OCTOBER 26, 1990

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THE HONOURABLE ALBERT DRIEDGER

MINISTER

HIGHWAYS AND TRANSPORTATION

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SUBMITTED BY:

THE HONOURABLE ALBERT DRIEDGER
MINISTER

MANITOBA DEPARTMENT OF HIGHWAYS AND TRANSPORTATION

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## EXECUTIVE SUMMARY

Historically, transportation has been supported and funded by the federal government to foster the evolution of Canada as we know it today. This was done to curb the economic aggression of western Canada by the United States. It was not possible to rely on the private sector to fund transportation infrastructure and services in view of the geographic barriers, vast distances and small population which prohibited the operation of profitable transportation services.

Although there have been many changes in Canada over the past century, these barriers continue to confront transportation. Therefore, the introduction of a blanket user pay or cost recovery program by the federal government would result in severing service to many of the nation's smaller and remote communities. Accordingly, it will be necessary to continue to provide support funding to maintain these essential services. In Manitoba, this would involve such initiatives as upgrading the rail line to Churchill, improvements to northern and remote rail passenger services, maintenance and upgrading of remote airports and related services.

The central governments of all developed nations have increased funding of transportation in recognition of the fact that a strong internal transportation system is essential to maintaining a competitive profile in a global economy. Canada has not maintained pace and our transport sector, their employees and Canadian users of transportation services are threatened with foreign domination and the potential for continued deterioration of essential transportation facilities.

This is particularly prevalent with respect to highways. Canada is the only developed nation in which the federal government has not taken the lead in maintaining and expanding a national road network. While in excess of 90% of intercity passenger travel is over the road system, the federal government has burdened the provinces with the costs of maintaining and expanding the national highway system. The ever increasing reliance on the road system for passenger and freight movement has culminated in the need for expansion and upgrading programs beyond the financial capabilities of most provinces. The federal government must, therefore, assume a lead role in rejuvenating and maintaining the national highway system to prevent further decay. Canada cannot afford to ignore the dominant role highways play in the movement of people and goods, as well as in promoting national objectives.

Attention is also needed to address the problems prevalent in the air, rail and marine sectors to provide for a responsive transportation system into the distant future. The focus must be on the essential services each mode performs, how these may be enhanced and yet maintain reasonable equity in the treatment of the various modes. With a vision to the

future, decisions must be made that capitalize on the advantages inherent within each mode to address such matters as congestion, safety, the environment and depleting resources of petroleum energy. This is consistent with national objectives with respect to the environment, economic development, trade, sovereignty and national security. Towards this end, we would urge your Commission to support the recommendations contained in our submission.

Statistics disclose that the socio-economic structure of Manitoba is more dependent upon transportation than is the case elsewhere in Canada. Accordingly, every effort must be made to build on our extensive and diversified transportation and distribution base. This includes education, research, development, operations, training, maintenance, environmental studies and manufacturing. My government holds itself open to work with the federal government and transportation system participants in the development and expansion of our highly valued transportation base.

Canada is in urgent need of a cooperative consultative environment to properly address the demands of our vital transportation system. The system must be proactive rather than reactive. It should also have access to a detailed information base to identify potential problems and then be able to implement programs to circumvent emerging impediments to the transportation network. Fundamental to this objective will be a commitment on behalf of the federal government and a willingness to involve the provinces, territories, municipal governments, labour, transport users and the carriers in the planning process.

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## 1. INTRODUCTION

We are pleased to have this opportunity to contribute the views, perspectives, policies and recommendations of the Government of the Province of Manitoba as it relates to establishing the framework for a national passenger transportation system for the twenty-first century.

### A. TERMS OF REFERENCE

Frankly, we are very concerned that your terms of reference have been restricted to a focus on the passenger transportation system. Recognizing that there is a direct relationship between goods and people movement, it is essential that the entire transportation network be included in your review. Not only do the two services go hand in hand, but they are often operated by the same carriers in the same equipment over the same infrastructure. Any action that is taken to facilitate the needs of passenger transportation will have a direct impact on freight transportation and vice versa. To the extent that costs and/or benefits may be imposed, transferred or shared through changes to the passenger transportation system, we would urge you not to isolate your focus to passenger transportation as a stand alone system.

### B. SIGNIFICANCE OF TRANSPORTATION TO MANITOBA

The transportation industry is of special importance to the Province of Manitoba. Our dependency upon both efficient transportation and effective transport policy is based on the long distance to major centres and markets. The vast distances, sparse and scattered population and the geographic and climatic barriers confronting Canada demand special consideration.

Transportation plays more than the conventional service role in Manitoba. It also forms a multifaceted and highly valued component of our social and economic base. Relative to the size of our population, more people are

employed in transportation in Manitoba than is the case in the other provinces. Approximately 28,500 Manitobans are employed in the provision of transportation services and an additional 7,000 are employed in transportation equipment manufacturing. There are also 1,300 workers involved in the construction of highways, bridges and streets.[1]

Expressed in economic terms, transportation and communications in 1988 represented 13.3% of our gross domestic product, whereas the average for Canada was 8.1%. This is reflected in the fact that Manitoba is the major trucking headquarters in Canada with nine of the thirteen largest interprovincial trucking companies being located here[2]. Also, in spite of the rapid decline in rail employment, Winnipeg continues to be the nation's second largest rail centre. In terms of local employment in transportation, the air service sector ranks third behind rail and truck, providing 3,600 jobs in 1989.

Extensive benefits are derived from support business, maintenance, manufacturing, processing and food products sectors. The importance of transportation as an industry in Manitoba warranted its selection as a priority area in past economic development agreements with the federal government.

## C. NATIONAL FOCUS ON TRANSPORTATION

We must have a continuous focus on developments so that Canada is able to adjust to the demands of the system and competitive international markets. This could be facilitated through the introduction of a systematic process under federal leadership working in harmony with other

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[1]Source: Manitoba Transportation Action Plan To The Year 2000.

[2]Source: Manitoba Trucking Association

levels of government and system participants, bearing in mind that they are also sponsors of the transportation system.

Most other developed nations have strong central policies and programs in place to meet the needs of their national transportation systems in recognition of the socioeconomic significance of a well-tuned transportation network in the movement of goods and people. If Canada is to remain competitive with these nations, then it is incumbent upon us to establish a framework that will provide the necessary ability to achieve this desired balance.

A rapidly changing international economic and social environment, deregulation, free trade, federal cost recovery initiatives, pending changes in agricultural transportation policy, as well as the goods and services tax, will all have an impact on our transportation system.

We must be prepared to deal with these changes.

## D. USER PAY AND COST RECOVERY

While the users and benefactors of the transport system should pay their fair share of the cost of providing the services, developing a transport system solely on the basis of "cost recovery" threatens the fundamental service needs of many Canadians. Canada did not evolve as an economic model. On the contrary, natural economic forces tended to be in a more north to south direction rather than east to west. Transportation was used as the thread to bind Canada in the interests of promoting and preserving a separate and distinct nation. The costs were high in view of the great distances, geographic barriers and sparse population. These conditions have not changed. Accordingly, we will have to continue to sponsor transportation if the service needs of Canadians are to be met.

## 2. TRANSPORTATION PLANNING AND COMMITMENTS IN THE INTERNATIONAL ARENA

U.S. Transportation Secretary Samuel Skinner, in addressing the Transportation Research Board on January 10, 1990, stated:

> "We no longer can take transportation for granted. We need to maintain, expand and make our transportation system more competitive. We need a better application of management and technology. The time is right for a national transportation strategy designed to increase reliance on the private sector, stimulate competition and allow the magic of the marketplace to work"

In commenting on the U.S. government's review of transportation, he went on to say:

> "In essence, what we heard was a call for an improved transportation system, a system with greater capacity, a sound financial base, a strong and competitive transportation industry, a system that protects the environment, that supports safety and national security, and that advances our transportation technology and expertise. The American people want new transportation to fit their needs in a new century."

In subsequent addresses, Mr. Skinner advised that the new American transportation policy envisions a stronger, healthier partnership among federal, state and local governments. This, he said, would require the federal government to concentrate more of its transport resources on projects of national significance and, in particular, provide increased federal flexibility to assist the individual states with their transportation problems. A commitment was made towards broader, more flexible funding. The federal administrator will be integrating state, local and regional transportation planning in its programs. The U.S.

government also intends to recover from users the maximum practical share of costs they impose on the system. It will also be attempting to stimulate greater private sector involvement in transportation.

It is of particular importance to note the stated policy of the U.S. government that it is the responsibility of the federal administration to ensure that essential new capacity is provided in transport systems of national significance. The U.S. government is also committed to fostering a sound financial base for transportation and will be fully using the funds that people have paid in user charges for transportation and investments in transportation.

To cite yet another example of central government leadership in transportation, we would refer you to comments made by the British Secretary of State for Transport, the Right Honourable Cecil Parkinson. He advised the Railway Gazette International magazine that transportation improvements are a major objective of his government and they are planning to double their 12 billion pounds sterling transportation budget between now and the year 2000. This includes one billion pounds sterling per year investment in rail electrification.

The secretaries of state for the United States and England have disclosed that increased transportation investments were essential to the survival of their countries in the international market place.

The foregoing are but two examples of the extensive commitments to transportation that are being made by our competitors.

Canada cannot afford to ignore this challenge. We are far behind most industrialized nations in the transportation planning and development process.

## 3. MAJOR ISSUES CONFRONTING CANADIAN TRANSPORTATION

### (A) HIGHWAYS

Canada ranks second in geographic area of all countries in the world. This expanse, combined with a widely dispersed and sparse population, makes the efficient movement of people and goods a matter of prime national interest. Personal mobility, travel, tourism, trade and commerce rely upon access to a safe and efficient highway system.

The highway network in Canada continues to play an ever increasing role in the movement of people and goods to the extent it now predominates by far the other systems. For example, statistics disclose that in 1988, 84% of the intercity trips were by automobile and 7% by bus. Thus, 91% of intercity travel in Canada was over the highway system, leaving the remaining 9% to the air and rail modes. Statistics also disclose that the demand for highway travel is expected to increase at a rate of 3 to 4% annually.[3] While the railways continue to dominate in the long haul movement of bulk commodities, the majority of short and medium distance hauls of bulk product are over the road system. Highways are also dominant in the movement of packaged goods.

Without exception, this situation is prevalent throughout all developed nations. In recognition of the importance of the road system to their national welfare, virtually every other national government has accepted the responsibility for sponsoring the upgrading, operating and maintaining of their major highways. It is a matter of extreme concern to us that the government of Canada has refused to accept its obligation to the nation to ensure the provision of a safe, adequate and reliable interprovincial road network consistent with our present and future needs.

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[3]Source: Energy and Environmental Factors in Intercity Passenger Transportation, Transport Canada, March 1990.

(i) Development of a National Highway System

Recognizing that the nation's highways were deteriorating and in increasing need of funding, the Roads and Transportation Association of Canada resolved in 1987 to recommend that the provinces and territories request that the Government of Canada join with them in with them in examining the establishment of a national highway policy for a designated national highway network. This was seen as being essential to ensure that all regions of Canada will be provided with adequate and required levels of service, safety and efficiency in highway transportation.

It was also considered to be a fundamental prerequisite to meeting the needs of the highway system into the next century. A national highway policy would also protect the intensive capital investment by all levels of government in what constitutes the framework of the Canadian highway system.

In September, 1987, The Council of Ministers Responsible for Transportation and Highway Safety directed staff to conduct a National Highway Policy Study for Canada. The four phase study was to define a national highway system, conduct a cost/benefit analysis of such a system and to consider funding options.

Work conducted to date has disclosed that over a five year period the provincial and territorial governments spent $23.2 billion on roads, while the federal government's contribution was a mere $1.2 billion or 5% of total road expenditures. During the same 1983-87 period, however, the federal government received 34% of the revenues derived from the road system in the form of fuel taxes.

By contrast, the U.S. government funds approximately 25% of all road expenditures in the U.S. In fact, they pick up 90% of the costs associated with the interstate highway system. In spite of a $43 billion overall budget cut, U.S. federal highway expenditures will increase by $1.1 billion to $13.3 billion for 1991. This is to rise to $18.86 billion by 1995. This is consistent with U.S. policy of upgrading and expanding its road network. In Canada, the problem has been exacerbated by federal initiatives that encourage the reduction in transport spending, which in turn encouraged a reduction in rail passenger and freight services. This shifts the traffic and burden of cost on to the road system, placing a financial liability on the shoulders of both provincial and municipal governments. Cost transference is not the answer to Canada's transport problems.

The results of the first phase of the National Highway Policy study identified a Canadian highway network of 22,449 km. These highways are deemed to be of national significance and represent less than 3% of the Canadian road and street infrastructure. Consensus was also reached on appropriate minimum design and operation standards. It was found that approximately 38% of the identified system was operating below at least one of the standards. Further, 790 bridges were identified as requiring major strengthening within the next five years. The costs of effecting the proposed upgrading has been estimated at $12.7 billion, requiring double the current level of expenditure. This is clearly beyond the financial capability of the provinces.

Failure to maintain our national highways results in increased utilization of the east-west U.S. highway system and this further prejudices the future of the east-west road system in Canada.

An improved national highway system would encourage increased travel and tourism across Canada, while at the same time providing for an estimated reduction in 160 fatal accidents and 2,300 injuries annually. Benefits would also accrue from improved market access for Canadian industry as well as in transportation productivity gains, thereby enhancing Canadian trade competitiveness.

It is becoming exceedingly difficult for the have-not provinces to meet their obligations to maintain and upgrade major interprovincial and international highways. Efforts to obtain the necessary funding through increased fuel taxes are met with volatile opposition. This is directly attributable to the heavy and repeated fuel tax increases applied by the federal government over the last five years.

We would, therefore, urge your Commission to recommend to the Prime Minister that Canada join with the provinces and territories in this venture which is so vital to the economic and social well-being of this country. Bearing in mind that in excess of 90% of intercity travel is over the highway system, it is essential to protect and expand upon our investment in the highway system consistent with national interest objectives and the social and economic well-being of Canada.

(ii) Bus Transportation

The private sector has played a very important role in the provision of intercity, rural and specialized transit services, including the movement of the mobility disadvantaged. The bus industry has also played an ever increasing role in the movement of packaged freight.

The demand for bus service is expected to increase. Improvements to the highway system, increased safety and the use of intermodal terminals would assist in enhancing bus transit. Special consideration will have to be given to the travel requirements of the mobility disadvantaged and how these services will be sponsored.

To the extent the federal government contributes to the national highway system, this will enable the provinces to effect improvements to the local road network and thus improve bus access.

## (B) LOCAL, REMOTE AND NORTHERN SERVICES

Canada's widely dispersed and limited population results in a level of people and goods movement that is insufficient to sustain service on a full cost recoverable basis over specific routes. This is particularly true with respect to services provided in the more remote areas of Canada.

In the absence of government support, these communities would soon be without service. Thus, it has been necessary for governments to provide the essential transportation facilities.

### (i) Northern Rail Service

Rail service provides the vital lifeline to remote northern communities in Manitoba. The federal government will be required to provide financial support for the retention and upgrading of the Churchill rail line and related freight and passenger services. Without federal support, the line will be closed and many northern communities will become ghost towns due to the loss of service. Since the Churchill line is required in the interests of sovereignty, resupply to the Keewatin district,

grain exports, northern development and other national interest considerations, it is imperative that all uncertainty surrounding the line be removed and that the line be upgraded.

The Winnipeg to Churchill train has been outfitted with the oldest equipment in the rail passenger car fleet. Not only is it unattractive, it is prone to breakdown. This contributes to service delays, slow and unreliable schedules and general customer dissatisfaction. It is also of concern to note that the lack of equipment has resulted in VIA being unable to meet the demand for service on this route. This has been a major irritant with the remote communities such as Thicket Portage and Pikwitonei as well as to passengers and tourists. Travel agents have been frustrated by their inability to book space and sleeping accommodations on the Churchill train.

Every effort should be made to provide modern, reliable and efficient rail passenger service in the north. Options to conventional passenger train service should be explored. There is good reason to believe that many remote communities could be more effectively served and at much lower cost through the introduction of modern rail bus service.

(ii) Airports

We currently maintain and operate 31 airports throughout northern Manitoba. These airports primarily serve remote and isolated communities of aboriginal people. The costs of operating, maintaining and improving these facilities are becoming prohibitive. At the same time, communities are demanding further improvements and expansions to their facilities.

We would urge you to recommend that the federal government sponsor a study in conjunction with the Province of Manitoba, which would evaluate provincially sponsored airports with a view to determining both their current adequacy and requirements, as well as to develop a program to meet the demands of the twenty first century. Further, the review should consider ways and means of funding improvements to and expansion of existing facilities.

(iii) Southern Services

Brandon is the largest centre in Manitoba outside of Winnipeg. We have been attempting to enhance the social and economic opportunities of this important Western Manitoba service centre. These initiatives have been frustrated by a declining rail presence and the inability of the community to secure and maintain adequate air service. The removal of the southern transcontinental passenger train resulted in this key community being denied yet another service link with southern Canadian centres such as Regina and Calgary.

Obviously, citizens of Brandon and other southwestern Manitoba communities are dismayed at the declining level of air and rail service in the region.

Support programs are required to provide communities such as Brandon with modern rapid service connections by rail and air.

(iv) Winnipeg to Capreol Rail Services

There are approximately 500 Manitobans who own cottages on the CN main line between Winnipeg and the Northern Ontario community of

Farlane. These properties have a value of approximately $20 million and were developed over the past 60 to 70 years on the understanding that there would be continued rail access. The former Winnipeg to Capreol train provided the 2,000 to 3,000 campers with the only practical service connection, since there is no other means of surface transportation access. The removal of this train without consideration for the cost burden that is being imposed on the cottage owners was an unconscionable action that must be rectified. Surely the cottage owners should not be expected to see their investments obliterated due to a lack of service access.

The transcontinental train which operates through these cottage communities precludes weekend access. Further, the train has insufficient capacity to meet the service demand, particularly during the summer months. VIA is only able to accommodate a maximum of 54 campers per train in view of capacity limitations.

Rail passenger service to this area must be restored.

## (C) AIR TRANSPORTATION

The conflict regarding noise levels of airports and adjacent land owners continues to grow. Manitoba is presently working on the development of legislation to encourage effective local land use controls around airports. The federal government should be working with the aviation industry, provincial and local governments to encourage compatible land use.

We also request the support of the federal government in expanding Winnipeg's access to international air service and to increase access for Canadian air carriers in international transportation markets. Canadian carriers will need ever increasing support in bilateral negotiations if they are to remain competitive in the international air service market.

Winnipeg suffers from a serious lack of direct air access to U.S. destinations. Further, the lack of transborder competition impacts negatively on both the level and quality of service. The introduction of an effective national air transportation policy and related strategies would enhance the growth and expansion of direct air service linkages to and from Winnipeg. We look forward with anticipation to the evolution of such programs following the review that is currently being conducted on air bilaterals by the federal government.

It is recommended that air/ground linkages be analyzed with a view to expediting the movement of passengers to airports. Expanded use of modern technology should also be explored to eliminate congestion and delays at airports. According to the May 18, 1990, issue of The Financial Post, Canadian air carriers lost $100 million due to airport congestion in 1989.

The establishment of local airport authorities should not result in the "have" provinces or the "have" cities developing an undue advantage over other airports. The system must be equitable so as to avoid a widening of the opportunity gap between the "have" and the "have not" provinces.

## (D) RAILWAYS

Rapid adjustments are taking place within the rail sector. Spurred by changes in federal legislation with an emphasis on self-sufficiency and a desire to be competitive in a deregulated environment, the two major railways have accelerated their rail line abandonment and staff reduction initiatives. Rail abandonment leads to a diversion of traffic to the road system, resulting in increased road maintenance and construction costs. The provinces and municipalities should be compensated for these increased costs.

Following the introduction of Bill C-18, CN and CP stated that they would have to cut the Canadian rail network in half. Rail employment in Canada has been reduced from 95,700 in 1983 to 73,500 in 1989. It has been projected that rail employment will fall to 50,000 by the year 2,000 and that it may not bottom out until 2010.

According to data developed from the VIA Review of Passenger Rail Transportation in Canada which was released in 1989, over 2,000 Manitobans owe their livelihood to rail passenger service. Since our services were cut by more than half, we stand to lose over 1,000 jobs eventually, representing approximately $30 million in wages annually. Another $20 million annually will be lost in the purchases of goods, services and taxes. In addition to providing an essential service in the movement of people, rail passenger operations fuel the food service, tourism and hotel industries. VIA is also an important customer for at least 48 Manitoba suppliers.

We cannot afford to lose the services and economic stimulus provided by rail operations in Manitoba. We advocate the modernization of the rail system in order that it may remain competitive.

If the current trend of branchline abandonment is allowed to continue, the rail network is expected to eventually consist of the mainline system with a number of major arterial routes and a few high density branch lines. Experts are suggesting that technological changes will lead to the expanded operation of cabooseless trains, the implementation of automatic train control and the possibility of rail electrification. This would become feasible through such developments as fibre optics and would be further induced as a result of the demands to reduce emissions and conserve depleting petroleum resources. Petroleum prices are expected to escalate as supplies diminish.

Transportation is the largest consumer of petroleum in Canada, accounting for approximately two-thirds of petroleum consumed. This is an increase from approximately 50% of petroleum consumed in 1978. The threat to our environment of fuel emissions, and the possibility of future energy shortages and resultant impact on energy prices, demands that we explore alternate energy sources. This is also important from the standpoint of economic security and national independence.

Part of the solution to many of the energy and environment related problems would appear to rest in the ability of the railways to become electrified, particularly where renewable hydro-electric resources can be accessed.

The U.S. has identified rapid rail systems as a means to resolving their congestion problems and transportation requirements between major centres up to 500 miles apart. The improved use of the existing rail facilities eliminates the high cost of providing duplicate or expanded facilities elsewhere in the transportation system. In Canada, it will be necessary to consider the potential benefits that would accrue to both freight and passenger movement by rail.

Initiatives are being taken to develop a national energy grid in order to distribute electricity more effectively across Canada. Electricity is being generated through thermal (coal), nuclear and hydro facilities. Environmentally damaging emissions can be minimized or eliminated at these fixed facilities. As a result, a reduction in emissions would be realized with the electrification of rail operations.

It has been estimated that hydro electric power would be approximately one quarter the cost of diesel fuel in powering locomotives. Further, electric locomotives offer the advantages of immediate power response, two times the traction, one third the maintenance and twice the life-span of diesel locomotives.

The fact that this is in complete harmony with energy self-sufficiency, environmental, safety, national security, developmental and economic recovery objectives should be sufficient inducement to encourage continued evaluation of the merits of rail electrification.

## (E) FUTURE ROLE OF MANITOBA IN TRANSPORTATION

Winnipeg has historically been the distribution centre for western Canada because of its geographic location in the centre of Canada. This is reflected in the fact that all major east-west highway and rail arteries converge in Winnipeg. In addition, Winnipeg is the most convenient interchange for traffic moving between western Canada and United States. This has resulted in the development of a vast system of transportation and distribution operations, maintenance and related support service centres within the Winnipeg area for the highway, rail and air modes.

As a net exporter of transportation services, Manitoba stands to lose more than the other provinces from a decline in transportation competitiveness with other nations. Since Winnipeg is the second largest rail centre in Canada, and is also a major aerospace and truck centre, and in view of the prevalence of manufacturing and maintenance activity in all modes, the Manitoba socio-economic base is more dependent upon transportation than are the other provinces. It is for this reason that Manitoba has made substantial funding commitments towards transportation in regional development agreements and sponsored the development of the University of Manitoba Transportation Institute. The Manitoba economy is dependent upon the preservation and expansion of our transportation distribution base.

Winnipeg offers a solid platform on which to expand Canada's transport capabilities in virtually every sphere, including

manufacturing, education, technological development, research, training, planning and operations. This could be readily and efficiently accomplished through the extension and expansion of existing resources and programs. The ever increasing focus on transportation and its impact on the environment further enhances expanded activity in transportation in Winnipeg, since the International Institute for Sustainable Development is located here. This would form a natural bond with transportation research, development and related testing.

The federal government must encourage increased research, development, education and technology transfer in transportation if Canada is to benefit from being on the leading edge of technology. Cooperation with the private sector, the provinces and educational institutions will be required. Education and training in transportation are essential for planning, designing, constructing, maintaining and operating modern, safe transportation systems compatible with the environment and energy demands. This program is also essential to provide a base for highly skilled transportation specialists for various government positions such as air traffic controllers, engineers and safety inspectors. Winnipeg offers a base on which to expand education, training and related research and development in transportation.

The congestion that is causing serious delays and disruption to the transportation system in larger centres could be partially relieved through the transfer of maintenance of transport equipment to Winnipeg, particularly with respect to the overhaul and maintenance of aircraft. Winnipeg has the capacity and the skills to effectively discharge these tasks.

We ask for the federal government's support to encourage the further development and manufacturing of transportation equipment in Manitoba.

## 4. OTHER SIGNIFICANT MATTERS

### (A) ENERGY AND ENVIRONMENTAL CONSIDERATIONS

Transportation accounts for approximately 25% of all energy consumed in North America. Transportation also consumes almost two-thirds of the petroleum used each year on the continent. In Canada, over 99% of the transportation energy is supplied by petroleum.

Details of energy consumption by mode in Manitoba is provided in Appendix F.

Dr. A.M. Khan of A.K. Socio-Technical Consultants Ltd. recently completed a study for Transport Canada titled "Energy and Environmental Factors in Intercity Passenger Transportation". The study disclosed that emissions from transportation vehicles, as a percentage of total national levels are: hydrocarbons 43%, carbon monoxide 57%, carbon dioxide 27% and oxides of nitrogen 51%.

Over the past twenty years there has been some progress made towards the resolution of this problem through an increased focus on energy conservation and the development of more fuel efficient vehicles. Over the long term, however, it will be necessary to explore energy options, if for no other reason than to meet the challenge of the diminishing reserves of petroleum. Economic security and national independence must be protected.

In the interest of preserving the environment, we endorse the ever increasing efforts towards sustainable development. Further reductions in vehicle emissions and the use of alternate power sources are also encouraged.

With the recent opening of the International Institute for Sustainable Development in Winnipeg, it is expected that the centre could become the nucleus for an international network of sustainable development research, product development and management practice. Manitoba endorses the concept of achieving an appropriate balance between environmental necessity and economic reality. For this reason, we are prepared to work with other jurisdictions and the transportation industry to develop a transportation plan aimed at achieving greater efficiency of energy use in the movement of people and goods.

Close coordination between the federal departments of energy and transportation would guarantee the compatibility of programs and policies with respect to energy and conservation needs. This demands consideration of utilizing both existing and new technologies to reduce emissions. Rail electrification, drawing on non-polluting and renewable hydro electric power should be fully exploited, where practical.

Studies have disclosed that the elimination of traffic congestion results in substantial increases in productivity through reductions in travel time. Road travel delays and delays at airports attributed to congestion lead to fuel waste, environmental damage, time lost and an increase in operating costs for carriers.

## (B) SAFETY

Safety in transportation is of growing concern. The changing economic climate, the trend to increasing international business exchange and the evolving social patterns have fostered an increased propensity to travel.

The federal government and the provinces have been working diligently towards enhancing safety in transportation. We must continue to expand our efforts through better driver and operator training in all modes, increased public awareness of transportation safety matters, more effective anti-drug and alcohol problems, improved vehicle designs, and effective regulation of dangerous goods movements.

Efforts should be made to improve upon the transportation data base to develop information and trends and to identify potential safety problems.

The continued introduction of new air traffic control technology is also recommended to ensure the air traffic control system is able to adjust to the growing demand. Regulatory standards and monitoring must keep abreast of such matters as aging aircraft and technological change. Coordination with other nations in developing effective and uniform aviation safety requirements is encouraged.

The federal government should continue to provide effective monitoring and safety enforcement for railroad operations. Since passenger transportation interfaces with freight transportation, it will be increasingly important to identify potential safety problems and further develop regulations to minimize risks and potential hazards.

We will continue to work with the federal government and other jurisdictions in implementing the final phases of the National Safety Code and in the policing and monitoring of its elements. While this will assist in enhancing highway safety, federal participation in a national highway system is essential to the achievement of optimum levels of road safety on our major highways.

## 5. OBSERVATIONS

The globalization of the world economy will place increasing demands on both passenger and freight service. The extent to which the individual nations provide for modern, diverse and responsive systems in cooperation with system participants will be a major factor in determining their success in maintaining a foothold in the highly competitive international market. Canada is presently missing the key ingredients to meet the challenges of the majority of industrialized nations.

The state of the world economy leaves much to be desired. Most, if not all, countries are incurring record deficits and have embarked on programs geared towards deficit reduction. Consistent with this initiative are efforts to curb imports while promoting exports. However, strong, modern, fast, reliable and efficient internal transportation systems have been identified by most nations as being the vehicle necessary to successfully penetrate and remain competitive in the global market. This has contributed to these nations increasing their transportation spending in spite of overall cuts in budgets. At the same time, Canada has been reducing its contributions to transportation. As a result, we continue to fall further and further behind other nations in maintaining and upgrading our transportation system. We are also lagging in education, research, development and planning in transportation. The system has been further frustrated as a result of the lack of coordination and cooperation with system participants and users in the planning process.

The introduction of the proposed national highway system is essential if our major highways are to be competitive with U.S. routes. This is consistent with the objective of encouraging Canadians to travel within Canada. Since highways accommodate in excess of 90% of all intercity travel, they are deserving of increased attention in the planning and development process.

The effectiveness of future system planning will rest with the ability of the federal government to establish a planning framework dealing with national transportation issues and problems that involves representation

from the various system participants, including federal, provincial and municipal governments as well as carriers and labor. The objective must be to provide a framework for the delivery of transportation programs and policies that are proactive rather than reactive.

Finally, the federal government must be prepared to implement a process that will ensure that no major changes are made to the transport system until the issues, costs and benefits have been properly identified and affected parties consulted.

## 6. RECOMMENDATIONS

### (A) HIGHWAYS

I. The federal government must endorse and sponsor a national highway system in view of the dominant role highways play in the movement of people and goods and in promoting national objectives.

II. Improvements must be made to the national highway system to comply with user, safety and economic demands of the system.

III. Federal taxes collected from highway users should be used to maintain and expand the highway system as required.

IV. All Canadian jurisdictions must continue their commitment towards uniformity of licencing, vehicle registration and safety.

## (B) LOCAL, REMOTE AND NORTHERN SERVICES

I. Government support towards remote and northern services is mandatory since the volume of goods and people movement to and from these areas is insufficient to sustain viable service by road, rail or air.

II. In view of the important role played by the rail line to Churchill in resupply, community access, grain exports, northern development, sovereignty and other national interest considerations, it is essential that the line be upgraded and a long term commitment be made to encourage development in the region.

III. Rail passenger service in the north must be upgraded through the introduction of more modern and more efficient equipment such as the rail bus.

IV. The federal government should sponsor a study of provincially operated airports in Manitoba to determine their adequacy and to assist in the development of a program to meet the demands of the twenty first century.

V. Federal funding is required to construct, operate and maintain transportation infrastructure serving small and remote communities including airport, roads, winter roads and rail lines.

VI. Support programs are needed to provide Brandon and other major Manitoba centres with modern rapid service connections.

VII. Rail service from Winnipeg to isolated cottage communities in northwestern Ontario must be restored.

(C) AIR TRANSPORTATION

I. The federal government must work with the industry and the provinces in promoting expanded air service linkages between Winnipeg and United States and overseas destinations.

II. Canada's air policy should enhance market opportunity for Canadian carriers while improving international air service access for Canadians.

III. Congestion in major centres could be minimized by encouraging the routing of traffic through Winnipeg where possible and by making maximum use of air maintenance and overhaul facilities in Winnipeg.

IV. Canada must work with the provinces, the aviation industry and local governments to encourage compatible land use adjacent to airports.

V. Canada is encouraged to work with other nations in developing international standards of air safety.

VI. Air - ground linkages should be analyzed with a view to expediting the movement of passengers and eliminating airport congestion.

(D) RAILWAYS

I. The losers in service and line abandonments should be fully compensated for their losses.

II. The federal government must continue to fund transportation projects serving the public interest and national objectives. Carriers should not be expected to incur this burden.

III. In return for federal subsidies to defray the costs of providing imposed public service duties, carriers must be obligated to supply proof of maximizing revenues through the provision of reliable and efficient services that are both effectively managed and promoted.

IV. The federal government should continue to explore the feasibility of high speed, electrified rail bearing in mind the benefits which could accrue to both freight and passenger components of the system. While reducing emissions and easing the demand for depleting petroleum resources, electrification would also provide for a faster, more efficient service.

V. Modernization of the rail system is necessary to the longer term competitiveness of Canadian railways.

## (E) TRANSPORTATION IN MANITOBA

As the socio-economic structure of Manitoba is dependent upon transportation, every effort must be made to capitalize on Winnipeg's extensive and diversified transportation and distribution base. This includes education, research, development, operations, training, maintenance, environmental studies and manufacturing.

## (F) ENERGY AND ENVIRONMENTAL MATTERS

I. Alternate energy sources must be explored in the interests of the environment, economic security and national independence.

II. An appropriate balance is required between environmental necessity and economic reality.

III. Increased efforts are required to reduce congestion. This would contribute to limiting fuel waste and environmental damage.

(G) SAFETY

Safety must continue to be a major priority in the future, including resolving the problems inherent in the movement of hazardous materials. Education programs and enforcement of regulations will assist in the elimination of drug and alcohol abuse in transportation and in encouraging safe driving habits.

(H) ACCESSIBLE TRANSPORTATION

The transportation needs of the mobility disadvantaged and the elderly should be a high priority.

7. MISCELLANEOUS RECOMMENDATIONS

(A) Canada competes with other nations that heavily subsidize their transportation as well as their export products. Canada must do likewise if we are to remain competitive or improve our position in export markets.

(B) Since free trade and deregulation have opened the door to competition from U.S. carriers, steps must be taken to protect the viability of Canadian based carriers and avoid the potential domination of the Canadian service market by the much larger U.S. carriers.

(C) Solutions do not rest in transferring the responsibility and costs from the federal government to others. It is mandatory that all costs and benefits are taken into consideration in the evaluation process before major service cuts or changes are made to the transportation system. It is essential that in developing cost estimates of transport options, the same methodology be employed to avoid costly decisions being based on misleading information. This

could be accomplished by employing the same methodology and costing elements for all modes and facilities as presently being used by Transport Canada in their proposed cost recovery policy for the marine and air sectors.

(D) An information base must be developed to identify potential problems and to trigger the necessary analysis, research, planning and introduction of programs to prevent such problems from becoming a reality. Strategic planning should focus on the development of a fully integrated, finely tuned, modern, efficient, safe and environmentally sound transportation system for Canada.

(E) Effective coordination with carriers, users, transportation employees and suppliers of transport infrastructure is necessary to the development of a responsive transportation system.

## APPENDIX A-1

## THE CURRENT MANITOBA TRANSPORTATION NETWORK

A) AIR SERVICE

B) HIGHWAYS AND ROADS

C) MOTOR VEHICLES

D) BUS TRANSPORT

E) RAILWAYS

## A-2

## TOURISM

## A-3

## PROVINCIAL ECONOMIC ACTIVITY AND EMPLOYMENT

## 1. THE CURRENT MANITOBA TRANSPORTATION NETWORK:

Low cost, reliable transportation is a prerequisite for the 1,084,000 Manitobans who are broadly dispersed across the length and breadth of the 250,946 square miles that constitute Manitoba. This has resulted in the provision of a diversified mix of transportation by land, water and air. However, improvements to much of our transportation infrastructure is required. These improvements are beyond the financial resources of the province.

The following is an outline of transportation activity in Manitoba.

### (A) AIR SERVICES

Air Canada operates frequent passenger and cargo flights daily from Winnipeg to domestic points east and west, with connections to destinations in Europe, Asia, the Caribbean, and the United States. The airline also has a nonstop flight to Chicago and, from December to April, flights to Florida, Montego Bay, Jamaica and Hawaii. Air Canada commenced a twice weekly service from Winnipeg to London, England via Ottawa in June, 1990. The service is to be operated for the peak summer traffic season until September.

Canadian Airlines International likewise operates frequent flights from Winnipeg to points east and west, connecting with northern points, Europe, Asia, the South Pacific and South America. From Winnipeg it serves The Pas, Flin Flon, Thompson, Gillam, Churchill and Rankin Inlet.

Perimeter Airlines, of Winnipeg, operates a daily flight to Red Lake, Ontario and Monday to Friday service to Brandon and Dauphin. Its northern Manitoba service includes daily flights to Norway House,

Island Lake, St. Theresa Point, Berens River, Cross Lake and Gods Lake Narrows.

Northland-Air Manitoba, of Winnipeg, flies daily to Gods Lake Narrows, Island Lake and St. Theresa Point, and also serves Gods River, Jenpeg, Oxford House, Red Sucker Lake, Thompson and Sandy Lake, Ontario. Northwinds, of Thompson, operates five days a week from Thompson to Cross Lake and Norway House. Northway Aviation operates from Winnipeg and Arnes to Berens River, Bloodvein, Poplar River and Little Grand Rapids. Keystone Air operates six days a week from Winnipeg to Dauphin and Swan River, and twice a week to The Pas. Bearskin Air operates six days a week from Winnipeg, to Kenora and Sioux Lookout, Ontario.

Calm Air, of Thompson, serves Winnipeg and a number of northern Manitoba communities including The Pas, Flin Flon, Lynn Lake, Thompson and Gillam. Calm Air also operates from Churchill and Thompson into the Northwest Territories. Northwest Territorial Airways has a three-day-a-week service linking Winnipeg with Yellowknife and Rankin Inlet.

Ontario Express provides service between Winnipeg and Thunder Bay and other major Ontario centres.

Northwest Airlines of Minneapolis, Minnesota operates daily flights to the Midwest and Florida, connecting at Minneapolis-St. Paul with 55 U.S. destinations.

Please refer to Appendix C for details on services from Winnipeg International Airport.

There are 104 licenced commercial air carriers in Manitoba. They operate a variety of services, such as flight training, aerial photography and surveying, crop dusting, and scheduled and chartered passenger and freight service, to dozens of Manitoba points.

Manitoba Government Air and Radio Services, established in 1932, operates from bases in Winnipeg and Thompson with a radio service shop in Dauphin. The service provides aerial support for forest fire suppression, an air ambulance service, the Northern Patient Air Transportation program, and Emergency Measures Organization. It transports government staff and freight and operates air services for surveys and patrols. Eleven aircraft make up the division's fleet.

The province operates and maintains 31 airports-aerodromes in northern Manitoba communities; 21 of these airstrips are certified to airport status. Most of the airports can accommodate up to and including Class 2 air services, and in 1988-89 they handled 64,851 aircraft movements, 173,103 passengers, and 9,553 tonnes of freight. The province has also assisted in the development of 25 small airports across southern Manitoba and provides annual operating grants to ensure their continued operation.

## (B) HIGHWAYS AND ROADS

Manitoba operates and maintains the primary and secondary highway system in the province.

Among major east-west highways in Manitoba are the 500 km provincial portion of the Trans-Canada Highway across the province. Completed as a two lane roadway in 1962, it has been substantially improved at the province's expense. The more northerly Yellowhead Route, which proceeds in a west-northwesterly direction from a point near Portage la Prairie, offers an alternative route from Manitoba to the west

coast. North-south highways include the 800 km route from the United States border at Turtle Mountain to Flin Flon and the highway linking Winnipeg and Thompson, which passes through the Interlake region.

In addition to the regular highway network, Manitoba also operates a 1,644 km system of "winter roads" to transport supplies to isolated northern communities. First developed in the late 1920s to supply northern mining camps, the winter road network has evolved from trails used by sled trains and small tractors to roads usable by large trucks. Winding through bush and muskeg, around large boulders, and across rivers and lakes, the roads are constructed to take advantage of snow and frost cover, and even heavily laden vehicles can safely cross frozen lakes once the roads are built. Winter roads normally are usable in January, February, and March, and occasionally for longer periods in very cold winters. They were constructed privately at first, under provincial land use permits, but since 1971 the province has built and maintained the system.

As of April 1, 1990, there were 7,353 km of provincial trunk highways in Manitoba (of which 667 were four-lane) and 12,384 km of provincial roads. In the trunk highway system, 368 km were concrete, 4,812 km bituminous surfacing, 2,027 km asphalt treatment, 132 km roadmix, and 38 km gravel.

The provincial roads are a secondary road system, which is also maintained by the province. The bulk of these roads are gravel surface. All trunk highways and some provincial roads are limited-access roads. The province maintains some 3,000 bridges on the two systems. The maximum gross vehicle weight for trucks on many of Manitoba's main trunk highways is 62,500 kilograms, while the balance of the trunk highway system has a maximum weight of 56,500 kilograms.

## (C) MOTOR VEHICLES

The number of passenger cars licenced in Manitoba as of February 28, 1989, was 519,835. There were 825 taxis and liveries, 406 delivery cars, 63,243 farm trucks, 28,101 commercial and public service trucks, 112,513 other trucks, 160 public service buses, 10,812 motorcycles and mopeds, 16,167 commercial and PSV trailers, 16,144 semi-trailers, 103,555 other trailers, 207 licenced tractors, 144 snowmobiles registered under The Highway Traffic Act, and 20,030 off-road vehicles, including snowmobiles.

In April 1989 there were 633,339 actively licensed drivers in Manitoba.

The number of households in Manitoba owning one car increased by 4% in 1989. In addition, the number of households with vans or trucks also increased by 4%.[4] Canadians own more cars than ever and are using the road system in record numbers.

It is of particular interest to note that while Statistics Canada reports that 84% of intercity trips in Canada are automobile, Manitobans rely upon the automobile for 87% of their intercity trips.

Please refer to Appendix D for further details of travel by Manitobans.

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[4]Source: Statistics Canada, Travel-Log, Winter 1990

## (D) BUS TRANSPORT

As of February 28, 1989, there were 160 public service buses licenced in Manitoba. Approximately 500 Manitobans are employed in this sector. Grey Goose is the largest operator, providing services throughout Manitoba. This company is owned by Laidlaw Transportation, a subsidiary of Canadian Pacific Ltd.

Greyhound Lines of Canada Ltd. supply main line bus services along the Trans Canada Highway and the Yellowhead Highway as well as to and from the United States. The Fehr group of companies includes Beaver Bus Lines, Eagle Bus Lines, Webb Bus Lines and Fehr-Way Tours. This company provides a wide range of local and tour services.

There are also a number of smaller bus operators in Manitoba who provide important service to communities throughout the province.

The bus industry not only provides reliable passenger service, but it has also grown in significance in the distribution of packaged freight in our province.

Please see Appendix E for details of bus services available in Manitoba.

We are pleased to report that the bus system is working well in Manitoba, particularly with respect to intra-provincial busing activity. Service entry and rate controls over this segment of the industry are assisting in providing both quality and frequency of service that would not be possible in a deregulated environment.

## (E) RAILWAYS

Railways have played a vital role in the province's history and economic development for more than 100 years. The availability of railway service has been a key factor in the development, prosperity, and survival of numerous Manitoba and Prairie communities.

Canadian National has some 4,100 kilometres of main track in Manitoba. A total of 820 kilometres of main track from The Pas to Churchill, formerly known as the Hudson Bay Railway and operated by CN for the federal government, was absorbed into the CN system on January 1, 1958.

CN's Symington Yard in St. Boniface is one of the most modern of its kind in the world, handling as many as 7,000 freight cars in a day.

The CN Transcona shops are the only major CN equipment repair and overhaul facilities for the whole of Canada. In relation to investment, number of employees, and production, this complex is the largest industrial plant in Manitoba. CN employment in Manitoba in 1989 averaged 6,200.

The railway's Fort Rouge computer centre in Winnipeg is the principal location for CN's traffic reporting and control system in Canada.

CN's national training centre for locomotive engineers, dispatchers, transportation supervisors, and master mechanics is located at Gimli, Manitoba. CN employees from all parts of Canada are assigned to this centre as trainees.

The CP Rail network in Manitoba comprises 2,500 km of mainline track and 820 km of sidings and yard track. CP Rail employment in 1989 was 2,900.

Winnipeg is the site of a 178-acre marshalling yard, where an average of 2,000 freight cars are processed daily. There are also two satellite yards, comprising 84 acres; an intermodal (container and trailer-on-flatcar) terminal and equipment repair facilities.

CP Rail operates fast freight trains between Winnipeg and principal markets and supply areas from coast to coast. There are daily piggyback connections between Winnipeg and trailer-on-flatcar (piggyback) terminals across Canada for the movement of motor common carrier and private industry highway trailers. The railway also operates intermodal services to industry with its own container fleet.

Import and export traffic moves between CP Rail's Winnipeg container terminal and major coastal ports by rail. Pickup and delivery within Winnipeg and the line-haul services to other Manitoba points are handled by truck. The railway handles both dry and refrigerated container traffic.

Winnipeg's Weston shops, one of three heavy repair facilities in the CP Rail system, employ about 800 people. The shops repair and rebuild locomotives and railway cars, and supply the entire CP Rail system with freight-car wheel sets and specially hardened components used in track switches. Also located in the Weston area is a diesel shop for light or "running" repairs on a Western Canadian fleet of about 400 locomotives.

VIA Rail Canada operates transcontinental passenger service linking Manitoba with eastern and western Canada. VIA also operates a triweekly Winnipeg-Thompson-Churchill service. Triweekly mixed train services also link The Pas and Lynn Lake, and Wabowden and Churchill. In Winnipeg, all VIA trains arrive and depart from Union Station at Main Street and Broadway.

The Greater Winnipeg Water District Railway, part of the City of Winnipeg's waterworks division, operates a 156 km line from St. Boniface to Waugh, on Shoal Lake near the Ontario boundary. The railway, completed in 1914, was built to serve the aqueduct that carries Winnipeg's fresh water supplies to the city from Shoal Lake.

Besides transporting freight and maintenance equipment for the aqueduct, the GWWDR carries commercial gravel mined at Ross, about 50 km east of Winnipeg.

Prior to 1990, VIA also provided service throughout the summer season to northwestern Ontario in order to enable access to cottage communities that are not accessible by road. This service was part of the severe rail passenger cuts made in January, 1990.

In total, rail passenger service in Manitoba was reduced from 48 trains per week to 20 trains per week. The impact in the loss of VIA jobs and positions in support services in Manitoba is expected to exceed 1,000. The annual loss to our economy will eventually exceed $50 million as a direct result of lost wages, purchases of goods and services, and lost taxes.

It is understood that your terms of reference exclude consideration of the impacts of these massive cuts. However, we must go on record as demanding that in designing a system to deal with future passenger system requirements, safeguards will be required to ensure that the appropriate studies are conducted and affected parties fully consulted before embarking on major cuts or changes.

2. **TOURISM:**

Manitoba offers tourists a wide and diversified range of attractions including parks, lakes, wildlife, flora, fishing, hunting, professional sports, golf courses, camping, museums, art galleries, zoos, vintage trains, historic sites, cruise ships, ballet, opera, symphony orchestra, theatre centres and festivals.

Approximately 2,500,000 non-resident tourists visit Manitoba annually. With the inclusion of Manitoban's travel within the province for pleasure purposes and vacations, the tourism total amounts to 8,000,000. Revenues generated from tourism fluctuate between $700,000,000 and $900,000,000 annually.

The revenue derived from tourism and the jobs provided by tourism activity are highly valued. The Province of Manitoba works closely with the tourism sector in an ongoing effort to improve upon facilities and programs to attract tourists to the province. We believe that the provision of a safe, efficient and uncongested transportation network and access to reliable services is essential to the promotion of tourism.

It is imperative that the Canadian transportation system be competitive with the U.S. system in terms of both quality and cost if we are to be successful in competing for tourism dollars.

The following table provides a ten year statistical summary of tourism in Manitoba.

TABLE 1

MANITOBA TOURIST COUNTS AND RECEIPTS 1980-1988

| YEAR | TOTAL VISITORS TO AND WITHIN MANITOBA | | | | | | TOTAL RECEIPTS |
|---|---|---|---|---|---|---|---|
| | MANITOBANS | CANADIAN | AMERICAN | FOREIGN | TOTAL NON-RESIDENT | GRAND TOTAL | ($MILLIONS) |
| 1980 | 4,338,800 | 1,938,569 | 961,022 | 67,000 | 2,966,591 | 7,305,391 | 648 |
| 1981 | 4,400,000 | 2,034,453 | 959,388 | 60,000 | 3,053,841 | 7,453,841 | 591 |
| 1982 | 4,446,377 | 1,789,758 | 810,180 | 47,220 | 2,647,158 | 7,093,535 | 668 |
| 1983 | 4,335,200 | 1,609,581 | 734,846 | 37,802 | 2,382,229 | 6,717,429 | 731 |
| 1984 | 4,374,000 | 1,547,321 | 726,430 | 57,000 | 2,330,741 | 6,704,741 | 694 |
| 1985 | 4,200,000 | 1,566,427 | 746,921 | 55,000 | 2,368,348 | 6,568,348 | 728 |
| 1986 | 5,069,000 | 1,768,608 | 711,444 | 58,000 | 2,538,052 | 7,607,052 | 682 |
| 1987 | 5,039,000 | 1,778,323 | 740,280 | 53,000 | 2,571,603 | 7,610,603 | 730 |
| 1988 | 5,384,000 | 1,806,225 | 721,962 | 77,000 | 2,605,187 | 7,989,187 | 869 |
| 1989P | 5,545,500 | 1,763,693 | 750,051 | 65,000E | 2,578,744 | 8,059,244 | 919E |
| % CHANGE | 3.0% | -2.4% | 3.9% | -15.9% | -1.0% | 0.9% | |

NOTES: P-PRELIMINARY E-ESTIMATE

SOURCES:

MANITOBA - DOMESTIC TRAVEL CTS 87-504 Biennial (Odd years - ITT Estimate)
1989 Estimate based on average increase 1980-1988 ie. 3.0%.

OTHER CANADIANS - INTERNATIONAL TRAVEL 66-001 Monthly + MBS Highway #1 Survey Counts

## 3. PROVINCIAL ECONOMIC ACTIVITY AND EMPLOYMENT:

Railways established Winnipeg as a major distribution and manufacturing centre. They were also responsible for enabling the development of mineral, agricultural and forestry resources through the provision of market access. Manitoba has developed a diversified economy with manufacturing representing the largest industry in the goods-producing sector in employment, wages and value of production.

Manitoba's estimated gross provincial product in 1988 was $21.5 billion. Total public and private investment was $5 billion.

TABLE 2

ESTIMATED VALUE OF MANITOBA FACTORY (MANUFACTURING) SHIPMENTS (MILLIONS OF DOLLARS)

| INDUSTRY | 1984 | 1985 | 1986 | 1987 | 1988P |
|---|---|---|---|---|---|
| Food | 1,489 | 1,695 | 1,707 | 1,568 | 1,590 |
| Beverages | 159 | 163 | 169 | 161 | 146 |
| Clothing & Textiles | 300 | 304 | 313 | 340 | 328 |
| Wood, Furniture & Fixtures | 248 | 277 | 327 | 364 | 355 |
| Paper & Allied | 249 | 239 | 268 | 295 | 308 |
| Printing, Publishing | 316 | 334 | 357 | 403 | 454 |
| Fabricated Metals | 263 | 290 | 314 | 362 | 390 |
| Machinery | 414 | 275 | 254 | 234 | 279 |
| Transportation Equipment | 428 | 491 | 440 | 518 | 608 |
| Non-metallic Minerals | 137 | 160 | 177 | 194 | 160 |
| Chemical | 169 | 214 | 204 | 195 | 214 |
| Electrical | 285 | 321 | 353 | 337 | 363 |
| Other | 585 | 790 | 818 | 922 | 1,043 |
| TOTAL ALL INDUSTRIES | 5,042 | 5,552 | 5,700 | 5,894 | 6,238 |

P - Preliminary

SOURCE: Statistics Canada, Catalogue 31-001 (Manufacturing)

A review of the following table will disclose that the service sector is the largest employer in Manitoba accounting for 163,000 jobs in 1988. Trade was next in line with 87,000 employees, followed by manufacturing at 63,000 and transportation and utilities at 47,000.

This provides yet another example of the significance of transportation to the Manitoba economy.

TABLE 3

EMPLOYMENT BY INDUSTRY, MANITOBA

(Thousands - Annual Average)

| Industry | 1987 | 1988 |
|---|---|---|
| Agriculture | 40 | 37 |
| Other Primary Industries | 9 | 10 |
| Manufacturing | 56 | 63 |
| Construction | 25 | 23 |
| Trade | 88 | 87 |
| Transportation & Utilities | 47 | 47 |
| Finance | 29 | 26 |
| Service | 160 | 163 |
| Public Administration | 40 | 39 |
| Total Employment | 492 | 494 |

Source: Statistics Canada, Catalogue 71-001 (Labour Force).

Manufacturing is an important sector of the Manitoba economy in its contribution to provincial production and in the number of jobs generated. Approximately 2,000 establishments are engaged in manufacturing, accounting for 13% of total provincial employment. In 1988, this sector produced goods valued at $6.24 billion.

The most important industries are food and beverages, machinery, primary metal fabricating, transportation equipment and clothing. Approximately three-quarters of the manufacturing activity takes place in Winnipeg. This sector is geared to both domestic and foreign markets with 10% of production being exported to markets outside Canada.

TABLE 4

GROSS PRODUCTION: GOODS-PRODUCING INDUSTRIES

| YEAR | MANUFACTURING (1) | CONSTRUCTION (1) | AGRICULTURE (2) | MINING (3) |
|---|---|---|---|---|
| | | (Millions of dollars) | | |
| 1976 | 2,766 | 1,233 | 1,083 | 515 |
| 1977 | 2,817 | 1,386 | 1,209 | 569 |
| 1978 | 3,278 | 1,502 | 1,517 | 468 |
| 1979 | 3,915 | 1,470 | 1,580 | 653 |
| 1980 | 4,357 | 1,398 | 1,669 | 821 |
| 1981 | 4,966 | 1,539 | 1,991 | 658 |
| 1982 | 4,854 | 1,422 | 2,015 | 550 |
| 1983 | 4,858 | 1,645 | 1,985 | 694 |
| 1984 | 5,042 | 1,873 | 2,302 | 817 |
| 1985 | 5,552 | 2,428 | 2,434 | 861 |
| 1986 | 5,700 | 2,798 | 2,023 | 764 |
| 1987 | 5,894 | 2,935 | 1,930 | 1,000 |
| 1988 | 6,239P | 3,188P | 1,764P | 1,679P |

P - Preliminary

Sources:
(1) Statistics Canada Catalogues 31-001 (Manufacturing) and 62-007 (Construction).
(2) Manitoba Agriculture
(3) Manitoba Energy and Mines.

# APPENDIX B

## HOUSEHOLD VEHICLE DATA

## TABLE 1 AUTOMOBILE, VANS AND TRUCKS (1) BY PROVINCE, 1989

| Province | Total households / Nombre total de ménages | Households with automobiles / Ménages propriétaires d'automobiles | | | | | Households with vans, trucks / Ménages propriétaires de fourgonnettes, camions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | One / Une | Two / Deux | Three or more / Trois ou plus | Households without / Ménages sans | Total | One / Un | Two or more / Deux ou plus | Households without / Ménages sans |
| | estimates in thousands/estimations en milliers | | | | | | | | | |
| Canada | 9,477 | 7,416 A | 5,444 A | 1,938 C | 434 D | 2,060 C | 2,416 C | 2,142 C | 274 D | 7,061 A |
| Nfld./T.-N. | 167 | 110 D | 89 D | 19 F | -- | 56 E | 54 D | 51 D | -- | 113 C |
| P.E.I./Î.-P.-É. | 44 | 36 C | 26 D | 9 E | -- | 8 E | 14 E | 13 E | -- | 30 C |
| N.S./N.-É. | 309 | 241 C | 176 C | 55 E | 10 F | 68 D | 87 D | 77 D | 10 F | 222 C |
| N.B./N.-B. | 242 | 186 C | 141 C | 40 E | 5 F | 56 D | 83 D | 76 D | 7 F | 160 C |
| Québec | 2,511 | 1,879 C | 1,380 C | 427 D | 73 F | 633 D | 392 D | 370 D | 22 C | 2,119 B |
| Ontario | 3,408 | 2,723 B | 1,724 C | 819 D | 180 E | 685 D | 741 D | 662 D | 80 E | 2,667 C |
| Manitoba | 383 | 292 C | 208 C | 68 E | 16 F | 90 D | 123 D | 105 D | 18 F | 260 C |
| Saskatchewan | 358 | 282 C | 195 C | 68 E | 20 E | 76 D | 158 D | 126 D | 32 E | 200 C |
| Alberta | 865 | 714 B | 460 C | 194 D | 60 E | 151 D | 360 C | 283 D | 77 E | 506 C |
| B.C./C.-B. | 1,189 | 952 C | 646 C | 239 D | 67 F | 237 E | 404 D | 360 D | 44 F | 784 C |

(1) Does not include rented vehicles or vehicles used primarily for business.
Ne comprend pas les véhicules loués ou les véhicules utilisés principalement pour le commerce.

## TABLE 2 AUTOMOBILES, VANS AND TRUCKS (1), BY PROVINCE, MAY 1988

| Province | Total households / Nombre total de ménages | Households with automobiles / Ménages propriétaires d'automobiles | | | | | Households with vans, trucks / Ménages propriétaires de fourgonnettes, camions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | One / Une | Two / Deux | Three or more / Trois ou plus | Households without / Ménages sans | Total | One / Un | Two or more / Deux ou plus | Households without / Ménages sans |
| | estimates in thousands/estimations en milliers | | | | | | | | | |
| Canada | 9.244 | 7.242 A | 4.919 B | 1.900 C | 423 D | 2.002 C | 2.247 C | 1.964 C | 283 D | 6.996 A |
| Nfld./T.-N. | 166 | 108 C | 84 C | 20 E | 4 F | 58 D | 52 D | 49 D | -- | 114 C |
| P.E.I./Î.-P.-É. | 44 | 36 C | 26 D | 8 E | -- | 8 E | 14 D | 13 E | -- | 30 C |
| N.S./N.-É. | 309 | 230 C | 173 C | 48 E | 9 F | 79 D | 79 D | 68 E | 11 F | 229 C |
| N.B./N.-B. | 238 | 183 C | 135 C | 43 D | 6 F | 55 D | 83 D | 73 D | 10 F | 155 C |
| Québec | 2.416 | 1.834 C | 1.310 C | 454 D | 70 F | 583 D | 353 D | 334 D | 19 F | 2.064 B |
| Ontario | 3.341 | 2.672 B | 1.725 C | 761 D | 186 E | 670 D | 672 D | 603 D | 69 E | 2.669 B |
| Manitoba | 380 | 287 C | 201 C | 68 E | 18 F | 92 D | 118 D | 101 D | 17 F | 262 C |
| Saskatchewan | 358 | 289 C | 202 C | 70 E | 17 E | 69 E | 162 D | 126 D | 36 E | 196 D |
| Alberta | 848 | 693 B | 437 C | 201 D | 54 E | 155 D | 343 D | 284 D | 79 E | 505 C |
| B.C./C.-B. | 1.145 | 911 C | 628 C | 226 D | 57 E | 234 E | 371 D | 333 D | 38 E | 774 C |

(1) Does not include rented vehicles or vehicles used primarily for business.
Ne comprend pas les véhicules loués ou les véhicules utilisés principalement pour le commerce.
(2) Total households with vehicles is less than the sum of households with automobiles and of households with vans and trucks since some households have both types./Le total des ménages possédant des véhicules est moindre que la somme total des ménages avec some households have both types./Le total des ménages possédant des véhicules est moindre que la somme total des ménages avec automobiles et des ménages avec fourgonnettes et camions car certains ménages possèdent les deux genres.

# APPENDIX C

## WINNIPEG INTERNATIONAL AIRPORT DEPARTURES

July, 1989

DIRECT FLIGHTS DEPARTING FROM WINNIPEG INTERNATIONAL AIRPORT

| ORIGIN | DESTINATION | AVERAGE FLIGHTS PER WEEK | AVERAGE FLIGHTS PER DAY | AVERAGE SEATS PER WEEK | AVERAGE SEATS PER DAY | CARRIER |
|---|---|---|---|---|---|---|
| Winnipeg | Akron/Canton, OH | 7 | 1.0 | 602 | 86.0 | United Airlines |
| Winnipeg | Akron/Canton, OH | 7 | 1.0 | 952 | 136.0 | Air Canada |
| Winnipeg | Austin, TX | 7 | 1.0 | 1022 | 146.0 | Northwest Airlines |
| Winnipeg | Berens River | 13 | 1.9 | 162 | 23.2 | Perimeter Airlines |
| Winnipeg | Brandon | 12 | 1.7 | 216 | 30.8 | Canadian Airlines |
| Winnipeg | Brandon | 5 | 0.7 | 35 | 5.0 | Perimeter Airlines |
| Winnipeg | Calgary, AB | 41 | 5.8 | 4555 | 650.7 | Canadian Airlines |
| Winnipeg | Calgary, AB | 28 | 4.0 | 2940 | 420.0 | Air Canada |
| Winnipeg | Chicago, IL | 7 | 1.0 | 952 | 136.0 | Air Canada |
| Winnipeg | Churchill | 5 | 0.7 | 600 | 85.7 | Canadian Airlines |
| Winnipeg | Cleveland, OH | 7 | 1.0 | 1022 | 146.0 | Northwest Airlines |
| Winnipeg | Dallas/Ft.Worth, TX | 7 | 1.0 | 700 | 100.0 | Northwest Airlines |
| Winnipeg | Dauphin | 10 | 1.4 | 70 | 10.0 | Perimeter Airlines |
| Winnipeg | Dauphin | 11 | 1.6 | 77 | 11.0 | Keystone Air Service |
| Winnipeg | Denver, CO | 14 | 2.0 | 1204 | 172.0 | United Airlines |
| Winnipeg | Dryden, ON | 19 | 2.7 | 342 | 48.9 | Canadian Airlines |
| Winnipeg | Dryden ON | 12 | 1.7 | 360 | 51.4 | Air Canada |
| Winnipeg | Edmonton, AB | 33 | 4.7 | 3768 | 538.3 | Air Canada |
| Winnipeg | Edmonton, AB | 1 | 0.1 | 120 | 17.1 | Canadian Airlines |
| Winnipeg | Flin Flon | 11 | 1.6 | 704 | 100.6 | Canadian Airlines |

July, 1989

| | | | | | | |
|---|---|---|---|---|---|---|
| Winnipeg | Fort Frances, ON | 5 | 0.7 | 160 | 22.9 | Norontair |
| Winnipeg | Gillam | 5 | 0.7 | 600 | 85.7 | Canadian Airlines |
| Winnipeg | Gods Narrows | 7 | 1.0 | 133 | 19.0 | Perimeter Airlines |
| Winnipeg | Gods Narrows | 10 | 1.4 | 403 | 57.6 | Northland Air Manitoba |
| Winnipeg | Gods Narrows | 2 | 0.3 | 86 | 12.3 | Canadian Airlines |
| Winnipeg | Gods River | 3 | 0.4 | 81 | 11.6 | Northland Air Manitoba |
| Winnipeg | Grand Forks, ND | 14 | 2.0 | 1204 | 172.0 | United Airlines |
| Winnipeg | Great Falls, MT | 7 | 1.0 | 700 | 100.0 | Northwest Airlines |
| Winnipeg | Halifax, NS | 7 | 1.0 | 952 | 136.0 | Air Canada |
| Winnipeg | Halifax, NS | 6 | 0.9 | 498 | 71.1 | Canadian Airlines |
| Winnipeg | Island Lake/Garden Hill | 15 | 2.1 | 376 | 53.7 | Northland Air Manitoba |
| Winnipeg | Island Lake/Garden Hill | 14 | 2.0 | 266 | 38.0 | Perimeter Airlines |
| Winnipeg | Island Lake/Garden Hill | 2 | 0.3 | 85 | 12.2 | Canadian Airlines |
| Winnipeg | Jenpeg | 2 | 0.3 | 92 | 13.1 | Northland Air Manitoba |
| Winnipeg | Kapuskasing, ON | 6 | 0.9 | 192 | 27.4 | Norontair |
| Winnipeg | Kelowna, BC | 6 | 0.9 | 720 | 102.9 | Canadian Airlines |
| Winnipeg | Kenora, ON | 6 | 0.9 | 84 | 12.0 | Bearskin Lake Air Service |
| Winnipeg | Knee Lake | 3 | 0.4 | 81 | 11.6 | Northland Air Manitoba |
| Winnipeg | Lebanon, New Hampshire | 7 | 1.0 | 700 | 100.0 | Northwest Airlines |
| Winnipeg | Little Grand Rapids | 3 | 0.4 | 21 | 3.0 | Perimeter Airlines |
| Winnipeg | Lynn Lake | 5 | 0.7 | 215 | 30.7 | Canadian Airlines |
| Winnipeg | Minneapolis/St. Paul, MN | 28 | 4.0 | 3444 | 492.0 | Northwest Airlines |

July, 1989

| | | | | | | |
|---|---|---|---|---|---|---|
| Winnipeg | Missoula, MT | 7 | 1.0 | 700 | 100.0 | Northwest Airlines |
| Winnipeg | Montreal, PQ | 20 | 2.9 | 2252 | 321.7 | Air Canada |
| Winnipeg | Montreal, PQ | 7 | 1.0 | 630 | 90.0 | Canadian Airlines |
| Winnipeg | Neggian | 7 | 1.0 | 49 | 7.0 | Perimeter Airlines |
| Winnipeg | Norway House | 10 | 1.4 | 190 | 27.1 | Perimeter Airlines |
| Winnipeg | Ottawa, ON | 32 | 4.6 | 3848 | 549.7 | Air Canada |
| Winnipeg | Ottawa, ON | 12 | 1.7 | 1290 | 184.3 | Canadian Airlines |
| Winnipeg | Oxford House | 6 | 0.9 | 273 | 39.0 | Northland Air Manitoba |
| Winnipeg | Oxford House | 2 | 0.3 | 86 | 12.3 | Canadian Airlines |
| Winnipeg | Rankin Inlet, NT | 4 | 0.6 | 216 | 30.9 | Air Canada |
| Winnipeg | Red Lake, ON | 5 | 0.7 | 70 | 10.0 | Bearskin Lake Air Service |
| Winnipeg | Red Lake, ON | 7 | 1.0 | 133 | 19.0 | Perimeter Airlines |
| Winnipeg | Red Sucker Lake | 3 | 0.4 | 81 | 11.6 | Northland Air Manitoba |
| Winnipeg | Regina, SK | 31 | 4.4 | 2990 | 427.1 | Canadian Airlines |
| Winnipeg | Regina, SK | 14 | 2.0 | 1616 | 230.9 | Air Canada |
| Winnipeg | Sandy Lake, ON | 3 | 0.4 | 18 | 2.6 | Northland Air Manitoba |
| Winnipeg | Saskatoon, SK | 27 | 3.9 | 2700 | 385.7 | Air Canada |
| Winnipeg | Saskatoon, SK | 23 | 3.3 | 2000 | 285.7 | Canadian Airlines |
| Winnipeg | Sault Ste. Marie, ON | 6 | 0.9 | 192 | 27.4 | Norontair |
| Winnipeg | Sault Ste. Marie, ON | 6 | 0.9 | 180 | 25.7 | Air Canada |
| Winnipeg | Sioux Lookout, ON | 11 | 1.6 | 154 | 22.0 | Bearskin Lake Air Service |
| Winnipeg | St. John's, NF | 7 | 1.0 | 952 | 136.0 | Air Canada |
| Winnipeg | St. John's, NF | 7 | 1.0 | 840 | 120.0 | Canadian Airlines |
| Winnipeg | St. Therese Point | 12 | 1.7 | 222 | 31.7 | Northland Air Manitoba |
| Winnipeg | St. Therese Point | 14 | 2.0 | 266 | 38.0 | Perimeter Airlines |

July, 1989

| | | | | | | |
|---|---|---|---|---|---|---|
| Winnipeg | Swan River | 11 | 1.6 | 77 | 11.0 | Keystone Air Service |
| Winnipeg | Tampa/St. Petersburg, FL | 7 | 1.0 | 1022 | 146.0 | Northwest Airlines |
| Winnipeg | The Pas | 11 | 1.6 | 935 | 133.6 | Canadian Airlines |
| Winnipeg | The Pas | 2 | 0.3 | 14 | 2.0 | Keystone Air Service |
| Winnipeg | Thompson | 19 | 2.7 | 1510 | 215.7 | Canadian Airlines |
| Winnipeg | Thompson | 7 | 1.0 | 242 | 34.6 | Northland Air Manitoba |
| Winnipeg | Thunder Bay, ON | 19 | 2.7 | 570 | 81.4 | Air Canada |
| Winnipeg | Thunder Bay, ON | 36 | 5.1 | 1362 | 194.6 | Canadian Airlines |
| Winnipeg | Thunder Bay, ON | 6 | 0.9 | 192 | 27.4 | Northland Air Manitoba |
| Winnipeg | Toronto, ON | 55 | 7.9 | 6772 | 967.4 | Air Canada |
| Winnipeg | Toronto, ON | 48 | 6.9 | 4320 | 617.1 | Canadian Airlines |
| Winnipeg | Vancouver, BC | 47 | 6.7 | 5010 | 715.7 | Canadian Airlines |
| Winnipeg | Vancouver, BC | 54 | 7.7 | 6084 | 869.1 | Air Canada |
| Winnipeg | Victoria, BC | 7 | 1.0 | 700 | 100.0 | Air Canada |

SOURCE: OFFICIAL AIRLINE GUIDE JULY,1989 (COMPILED BY TRANSPORTATION RESEARCH BRANCH)

January, 1990

DIRECT FLIGHTS DEPARTING FROM WINNIPEG INTERNATIONAL AIRPORT

| ORIGIN | DESTINATION | AVERAGE FLIGHTS PER WEEK | AVERAGE FLIGHTS PER DAY | AVERAGE SEATS PER WEEK | AVERAGE SEATS PER DAY | CARRIER |
|---|---|---|---|---|---|---|
| Winnipeg | Atlanta, GA | 7 | 1.0 | 1022 | 146.0 | Northwest Airlines |
| Winnipeg | Berens River | 13 | 1.9 | 163 | 23.3 | Perimeter Airlines |
| Winnipeg | Brandon | 5 | 0.7 | 95 | 13.6 | Perimeter Airlines |
| Winnipeg | Brandon | 19 | 2.7 | 342 | 48.9 | Canadian Airlines |
| Winnipeg | Calgary, AB | 28 | 4.0 | 3232 | 461.7 | Air Canada |
| Winnipeg | Calgary, AB | 41 | 5.9 | 4500 | 642.9 | Canadian Airlines |
| Winnipeg | Chicago, IL | 7 | 1.0 | 700 | 100.0 | Air Canada |
| Winnipeg | Churchill | 3 | 0.4 | 360 | 51.4 | Canadian Airlines |
| Winnipeg | Cross Lake | 8 | 1.1 | 152 | 21.7 | Perimeter Airlines |
| Winnipeg | Dauphin | 10 | 1.4 | 190 | 27.1 | Perimeter Airlines |
| Winnipeg | Dauphin | 11 | 1.6 | 77 | 11.0 | Keystone Air Service |
| Winnipeg | Dryden, ON | 12 | 1.7 | 360 | 51.4 | Air Canada |
| Winnipeg | Dryden, ON | 19 | 2.7 | 342 | 48.9 | Canadian Airlines |
| Winnipeg | Edmonton, AB | 34 | 4.9 | 3792 | 541.7 | Air Canada |
| Winnipeg | Flin Flon | 7 | 1.0 | 532 | 76.0 | Canadian |
| Winnipeg | Fort Frances, ON | 6 | 0.9 | 192 | 27.4 | Norontair |
| Winnipeg | Fort Myers, FL | 7 | 1.0 | 1022 | 146.0 | Northwest Airlines |
| Winnipeg | Gillam | 3 | 0.4 | 360 | 51.4 | Canadian Airlines |
| Winnipeg | Gods Narrows | 10 | 1.4 | 403 | 57.6 | Northland Air Manitoba |

January, 1990

| | | | | | | |
|---|---|---|---|---|---|---|
| Winnipeg | Gods Narrows | 7 | 1.0 | 133 | 19.0 | Perimeter Airlines |
| Winnipeg | Gods River | 6 | 0.9 | 219 | 31.3 | Northland Air Manitoba |
| Winnipeg | Halifax, NS | 12 | 1.7 | 1632 | 233.1 | Air Canada |
| Winnipeg | Halifax, NS | 1 | 0.1 | 90 | 12.9 | Canadian Airlines |
| Winnipeg | Honolulu, HW | 1 | 0.1 | 452 | 64.6 | Canadian Airlines |
| Winnipeg | Island Lake/Garden Hill | 17 | 2.4 | 542 | 77.4 | Northland Air Manitoba |
| Winnipeg | Island Lake/Garden Hill | 11 | 1.6 | 209 | 29.9 | Perimeter Airlines |
| Winnipeg | Jenpeg | 2 | 0.3 | 92 | 13.1 | Northland Air Manitoba |
| Winnipeg | Kansas City, MS | 7 | 1.0 | 930 | 132.9 | Northwest Airlines |
| Winnipeg | Kapuskasing, ON | 6 | 0.9 | 192 | 27.4 | Norontair |
| Winnipeg | Kenora, ON | 5 | 0.7 | 70 | 10.0 | Bearskin Lake Air Sevice |
| Winnipeg | Knee Lake | 3 | 0.4 | 81 | 11.6 | Northland Air Manitoba |
| Winnipeg | Minneapolis/St. Paul, MN | 21 | 3.0 | 2698 | 385.4 | Northwest Airlines |
| Winnipeg | Montego Bay, Jamaica | 1 | 0.1 | 136 | 19.4 | Air Canada |
| Winnipeg | Montreal, PQ | 21 | 3.0 | 2768 | 395.4 | Air Canada |
| Winnipeg | Montreal, PQ | 13 | 1.9 | 1170 | 167.1 | Candian Airlines |
| Winnipeg | Neggian | 7 | 1.0 | 49 | 7.0 | Perimeter Airlines |
| Winnipeg | Norway House | 14 | 2.0 | 266 | 38.0 | Perimeter Airlines |
| Winnipeg | North Bay, ON | 1 | 0.1 | 32 | 4.6 | Norontair |
| Winnipeg | Ottawa, ON | 22 | 3.1 | 2884 | 412.0 | Air Canada |
| Winnipeg | Ottawa, ON | 19 | 2.7 | 2100 | 300.0 | Candian Airlines |
| Winnipeg | Oxford House | 6 | 0.9 | 276 | 39.4 | Northland Air Manitoba |

| | | | | | | |
|---|---|---|---|---|---|---|
| Winnipeg | Rankin Inlet, NT | 3 | 0.4 | 333 | 47.6 | Air Canada |
| Winnipeg | Red Lake, ON | 17 | 2.4 | 323 | 46.1 | Frontier Air |
| Winnipeg | Red Lake, ON | 7 | 1.0 | 133 | 19.0 | Perimeter Airlines |
| Winnipeg | Red Lake, ON | 7 | 1.0 | 98 | 14.0 | Bearskin Lake Air Service |
| Winnipeg | Red Sucker Lake | 6 | 0.9 | 219 | 31.3 | Northland Air Manitoba |
| Winnipeg | Regina, SK | 13 | 1.9 | 1516 | 216.6 | Air Canada |
| Winnipeg | Regina, SK | 26 | 3.7 | 2635 | 376.4 | Canadian Airlines |
| Winnipeg | St. John's, NF | 7 | 1.0 | 952 | 136.0 | Air Canada |
| Winnipeg | St. Therese Point | 13 | 1.9 | 461 | 65.9 | Northland Air Manitoba |
| Winnipeg | St. Therese Point | 10 | 1.4 | 228 | 32.6 | Perimeter Airlines |
| Winnipeg | Sandy Lake, ON | 3 | 0.4 | 138 | 19.7 | Northland Air Manitoba |
| Winnipeg | Saskatoon, SK | 26 | 3.7 | 2816 | 402.3 | Air Canada |
| Winnipeg | Saskatoon, SK | 23 | 3.3 | 2000 | 285.7 | Canadian Airlines |
| Winnipeg | Sault Ste. Marie, ON | 6 | 0.9 | 192 | 27.4 | Norontair |
| Winnipeg | Sault Ste. Marie, ON | 6 | 0.9 | 180 | 25.7 | Air Canada |
| Winnipeg | Sioux Lookout, ON | 22 | 3.1 | 418 | 59.7 | Frontier Air |
| Winnipeg | Sioux Lookout, ON | 12 | 1.7 | 168 | 24.0 | Bearskin Lake Air Service |
| Winnipeg | Sudbury, ON | 6 | 0.9 | 192 | 27.4 | Norontair |
| Winnipeg | Swan River | 11 | 1.6 | 77 | 11.0 | Keystone Air Service |
| Winnipeg | The Pas | 2 | 0.3 | 14 | 2.0 | Keystone Air Service |
| Winnipeg | The Pas | 11 | 1.6 | 935 | 133.6 | Canadian Airlines |
| Winnipeg | Thompson | 19 | 2.7 | 1510 | 215.7 | Canadian Airlines |
| Winnipeg | Thompson | 4 | 0.6 | 242 | 34.6 | Northland Air Manitoba |
| Winnipeg | Thunder Bay, ON | 19 | 2.7 | 570 | 81.4 | Air Canada |
| Winnipeg | Thunder Bay, ON | 36 | 5.1 | 1362 | 194.6 | Canadian Airlines |
| Winnipeg | Thunder Bay, ON | 17 | 2.4 | 323 | 46.1 | Frontier Air |

January, 1990

| | | | | | | |
|---|---|---|---|---|---|---|
| Winnipeg | Thunder Bay, ON | 6 | 0.9 | 192 | 27.4 | Norontair |
| Winnipeg | Timmins, ON | 6 | 0.9 | 192 | 27.4 | Norontair |
| Winnipeg | Toronto, ON | 47 | 6.7 | 5720 | 817.1 | Air Canada |
| Winnipeg | Toronto, ON | 48 | 6.9 | 4892 | 698.9 | Canadian Airlines |
| Winnipeg | Vancouver, BC | 41 | 5.9 | 4170 | 595.7 | Canadian Airlines |
| Winnipeg | Vancouver, BC | 53 | 7.6 | 5480 | 782.9 | Air Canada |
| Winnipeg | Victoria, BC | 7 | 1.0 | 700 | 100.0 | Air Canada |
| Winnipeg | Yellowknife, NT | 3 | 0.4 | 333 | 47.6 | Air Canada |

SOURCE: OFFICIAL AIRLINE GUIDE JANUARY, 1990 (COMPILED BY TRANSPORTATION RESEARCH BRANCH)

# APPENDIX D

## TRIPS BY MANITOBANS

## TABLE 5

### TOTAL NUMBER OF INTRA AND INTER PROVINCIAL TRIPS TAKEN BY MANITOBANS 1884-1986-1988

| | 1984 | 1986 | 1988 |
|---|---|---|---|
| | | Person Trips | |
| Intra-Provincial | 2775 | 2860 | 2821 |
| Inter-Provincial | 838 | 1065 | 1057 |
| Total | 3613 | 3925 | 3878 |

Source: Statistics Canada: Travel-LO9
Catalogue #87-003

## TABLE 6

### TOTAL NUMBER OF INTRA AND INTER PROVINCIAL TRIPS TAKEN BY MANITOBANS BY CAR 1984-1986-1988

| | 1984 | 1986 | 1988 |
|---|---|---|---|
| | | Person Trips | |
| Intra-Provincial | 2601 | 2695 | 2684 |
| Inter-Provincial | 545 | 724 | 677 |
| Total | 3146 | 3419 | 3361 |

Source: Statistics Canada: Travel-LO9
Catalogue #87-003

# APPENDIX E

## BUS SERVICE: FREQUENCIES AND CAPACITY

TABLE 7

1989 ORIGIN-DESTINATION FREQUENCIES AND CAPACITY
OF GREYHOUND BUS LINES OF CANADA-MANITOBA REGION

| From | To | Trips Per Day | Seats Per Day | Trips Per Week | Seats Per Week |
|---|---|---|---|---|---|
| Winnipeg | Calgary/ Vancouver | 5 | 47 | 35 | 1645 |
| Winnipeg | Toronto | 5 | 47 | 35 | 1645 |
| Winnipeg | Saskatoon/ Edmonton/ Vancouver | 4 | 47 | 28 | 1316 |
| Winnipeg | Reston/ Rivers/ Regina | 2 | 47 | 14 | 658 |
| Winnipeg | Yorkton | 1 | 47 | 7 | 329 |
| Winnipeg | Russell* | 1 | 47 | 3 | 141 |
| Winnipeg | Brandon | 3 | 47 | 21 | 987 |
| Winnipeg | Roblin | 1 | 47 | 7 | 329 |

* 3 Days a Week.

Source: Official Canadian Bus Guide. September-October 1989.

TABLE 8

1989 ORIGIN - DESTINATION, FREQUENCIES AND CAPACITY OF

GREY GOOSE BUS LINES LIMITED - MANITOBA

| From | To | Trips Per Day | Seats Per Day | Trips Per Week | Seats Per Week |
|---|---|---|---|---|---|
| Winnipeg | Morden/Deloraine Estevan/Regina | 1 | 47 | 7 | 329 |
| Winnipeg | Lac du Bonnet Grand Beach Pine Falls | 1 | 47 | 2 | 94 |
| Winnipeg | Ninette/** Deloraine/ Melita | 1 | 47 | 2 | 94 |
| Winnipeg | Gimli/*** Riverton | 1 | 47 | 1 | 47 |
| Winnipeg | Altona/*** Letellier/Gretna | 1 | 47 | 1 | 47 |
| Winnipeg | Fort Frances/ Thunder Bay/ Hearst | 1 | 47 | 7 | 329 |
| Winnipeg | Brandon/ Dauphin/ Duck Bay/ Swan River | 4 | 47 | 28 | 1316 |
| Winnipeg | Grand Rapids/ Thompson/ Lynn Lake/ Gillam | 2 | 47 | 14 | 658 |
| Winnipeg | Dauphin/ Swan River/ The Pas/ Flin Flon/ Thompson | 2 | 47 | 14 | 658 |
| Winnipeg | Easterville/ The Pas | 4 | 47 | 28 | 1316 |

TABLE 8 (cont'd)

1989 ORIGIN - DESTINATION, FREQUENCIES AND CAPACITY OF GREY GOOSE BUS LINES LIMITED - MANITOBA

| From | To | Trips Per Day | Seats Per Day | Trips Per Week | Seats Per Week |
|---|---|---|---|---|---|
| Winnipeg | St. Pierre/ Vita | 1 | 47 | 7 | 329 |
| Winnipeg | Arborg/ Hodgson/ Koostatak | 1* | 47 | 2 | 94 |
| Winnipeg | Russell | 1 | 47 | 7 | 329 |
| Winnipeg | Alonsa | 1 | 47 | 7 | 329 |
| Brandon | Killarney/ Winnipeg | 3 | 47 | 21 | 987 |
| Brandon | Rivers/Birtle/ Russell | 1 | 47 | 7 | 329 |
| Brandon | Melita | 1 | 47 | 7 | 329 |
| Flin Flon | Snow Lake/ Thompson | 1 | 47 | 7 | 329 |
| Thompson | Cross Lake/ Norway House | 1 | 47 | 7 | 329 |

* Two days a week only.
** Monday and Friday only
*** One day only.

Source: Official Canadian Bus Guide. September - October 1989

# APPENDIX F

## FUEL CONSUMED BY TRANSPORTATION IN MANITOBA

**FUEL CONSUMPTION - PASSENGER BUS, OTHER BUS, URBAN TRANSIT - MANITOBA**

There was no significant change in the consumption level of diesel fuel by passenger bus in the years 1986 through 1988. Table 9 shows that there was a two percent increase in number of litres used by passenger buses from 1986 to 1987 and another two percent increase from 1987 to 1988. The table also shows that after 1987 passenger buses were not consuming gasoline. On the other hand other buses (school bus, small charters, buses that transport persons to and from airports) are still using gasoline. The table indicates that from 1986 to 1987 there was a 41 percent decrease in gasoline consumption but the level increased by 23 percent in 1988.

Consumption levels of gasoline by urban transit declined from a high of one billion in 1986 to one hundred and sixty-two million in 1988. The data indicates that while urban transit buses were using less gasoline, they (the buses) were consuming more energy efficient diesel fuel in the years under consideration. It is also possible that fewer gasoline powered buses were in use.

## TABLE 9

### GASOLINE AND DIESEL FUEL CONSUMED BY MANITOBA BUSES

### 1986, 1987 AND 1988

| | | 1988 | 1987 | 1986 |
|---|---|---|---|---|
| | | THOUSANDS OF LITRES | | |
| Passenger Bus | Gasoline | 0 | 2,981 | 65,033 |
| | Diesel | 4,530,742 | 4,458,628 | 4,375,507 |
| Other Bus | Gasoline | 739,773 | 568,289 | 965,166 |
| | Diesel | 824,784 | 800,285 | 829,569 |
| Urban Transit | Gasoline | 162,000 | 189,053 | 1,069,661 |
| | Diesel | 16,947,165 | 16,987,367 | 17,053,657 |

Source: Transportation Division, Statistics Canada.

## FUEL CONSUMPTION - AUTOMOBILES

Statistics Canada reports that between 1984 and 1988 the number of personal use passenger cars operated in Canada increased by 14 percent from 7.1 million to 8.2 million.

The statistical agency carries out a quarterly survey of fuel consumption patterns of personal use passenger cars and develops a fuel consumption ratio for current model year cars and previous ones. The Fuel Consumption Ratio is the total fuel consumed by a group of operated vehicles divided by the total distance driven by those vehicles expressed in litres/100 kilometers. It is equivalent to the weighted average of the fuel consumption rates of individual vehicles where the weight of the vehicle is the distance driven by the vehicle.[a]

Table 10 shows the fuel consumption ratio for passengers cars driven in Manitoba for model years 1984-1988 by quarters.

---

[a]STATISTICS CANADA: Fuel Consumption Survey, Catalogue #53-226.

The table indicates that the FCR for the model years decreased significantly each consecutive year in Manitoba.

TABLE 10

FUEL CONSUMPTION RATIO BY MODEL YEAR AND QUARTER

| MANITOBA | 1988 | 1987 | 1986 | 1985 |
|---|---|---|---|---|
| Jan.-Mar. | 10.6 | 11.2 | 15.8 | 13.9 |
| April-June | 10.3 | 10.3 | 13.5 | 15.4 |
| July-Sept. | (1)* | (1) | (1) | (1) |
| Oct.-Dec. | 10.7 | 11.1 | 14.9 | 14.6 |
| Total | 10.1 | 10.3 | 13.6 | 13.8 |

SOURCE: Fuel Consumption Survey Statistics Canada. Catalogue #53-226.
*(1) Sample size is too small to release estimate.

A possible explanation for the decrease in fuel consumption levels from 1985 to 1988 may be found in the large number of four cylinder cars entering the market between that time and the disappearance of eight cylinder cars. Statistics Canada reports that in 1984 four cylinder cars comprised 34 percent of the fleet and eight cylinder cars comprised 47 percent of the fleet. However, in 1988 the number of four cylinder cars had increased to 52 percent of the fleet while the number of eight cylinder cars had decreased to 27 percent of the fleet. Throughout this period the population of six cylinder cars remained constant at 20 percent.[6]

## VIA RAIL FUEL CONSUMPTION

Statistics Canada reports that in 1986 VIA Rail consumed 11.6 million litres of fuel in the province. In 1987 the consumption level remained the same.

---

[6]STATISTICS CANADA: Fuel Consumption Survey. Catalogue #53-226.

## FUEL CONSUMPTION - AVIATION

Statistics Canada in their quarterly energy supply and demand series publishes final demand numbers by Canadian airlines for aviation gasoline and aviation turbo fuel. Aviation gasoline is the fuel used by propeller powered aircrafts. Aviation turbo fuel is the fuel used by the jet powered aircrafts. The difference is clearly demonstrated in table 12. The larger and more powerful jets consumed more aviation turbo fuel than the smaller propeller-driven airplanes that consumed aviation fuel.

TABLE 11

AVIATION AND AVIATION TURBO FUEL
CONSUMED BY CANADIAN AIRLINES IN
MANITOBA 1987-1989

| | 1989 | 1988 | 1987 |
|---|---|---|---|
| | THOUSANDS OF LITRES | | |
| AVIATION FUEL | 11.0* | 19.5 | 20.5 |
| AVIATION TURBO FUEL | 139.0* | 188.6 | 182.9 |

*Represents the first three quarters of 1989.

SOURCE: Statistics Canada: Quarterly Report of Energy Supply and Demand in Canada. Catalogue #57-003.